

**REMARKS**

Claims 7-26 are now pending in this application. Claims 18-20 are withdrawn. Claims 7-17 and 21-23 are rejected. Claims 1-6 are previously cancelled. New claims 24-26 are added. Claims 11, 16, 17, and 22 are amended herein to be in better form.

Claims 7-10, 13-17, and 21-23 have been rejected under 35 U.S.C. § 102(e) as anticipated by U.S. Patent No. 6,852,937 (Zapf et al.).

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *See Verdegaal Brothers Inc. v. Union Oil Company of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Claim 7 recites that the distance changes are made for the purpose of changing the inductance of the sensor coil and that the inductance change in the sensor coil initiates a switching function in the evaluation circuit. Such limitation is not disclosed in Zapf et al. As explained in column 2, lines 52-63 of Zapf et al., the oscillating power source creates an electric current in exciter loop 12 which in turn generates a magnetic field  $M_1$ . The magnetic field  $M_1$  acts on the sensor coil 13 to create a voltage on the sensor coil 13. It is the voltage on the sensor coil that is amplified and sent to the evaluation unit 16. Thus, what is being evaluated in Zapf et al. are changes in the magnetic field. In contrast, the claimed invention is

based on changes in inductance to create switching functions in the evaluation circuit.

Moreover, it is clear from Figures 2 and 3 of Zapf et al. that the device disclosed in Zapf et al. is a transformer. One of ordinary skill in the art would readily know that a transformer is very different from the claimed invention. In fact, the mathematical description of an ideal transformer is based on counter inductivity  $M$ , rather than inductance  $L$ . Additionally, the drag effect of a non-ideal transformer is not used in the invention of Zapf et al.

Thus, the invention of Zapf et al. fails to disclose all of the limitations of claim 7 of the present invention. Applicants therefore respectfully request that claim 7 be allowed.

Claims 8 and 10 recite that the changes in coverage are made for the purpose of changing the inductance of the sensor coil and that the inductance change in the sensor coil initiates a switching function in the evaluation circuit. Claim 13 recites that the distance changes are made for the purpose of changing the inductance of the sensor coil and that the inductance change in the sensor coil initiates a switching function in the evaluation circuit. Thus, claims 8, 10, and 13 are similar to claim 7 in that they recite a switching function initiated by a change in inductance. As explained above regarding claim 7, Zapf et al. fails

to disclose such subject matter. Accordingly, claims 8, 10, and 13 are patentable for similar reasons as claim 7.

Claims 11 and 12 have been rejected under 35 U.S.C. § 103(a) as obvious over Zapf et al. in view of U.S. Patent No. 6,822,440 (Machul).

To establish a *prima facie* case of obviousness, it is necessary to show that all the claim limitations are taught or suggested by the prior art. *See In re Royka and Martin*, 180 USPQ 580, 583, 490 F.2d 981 (CCPA 1974).

Claim 11 and claim 12 (by dependency), recite an LC oscillating circuit. The Office Action states on page 4 that Zapf et al. does not disclose an LC oscillating circuit and relies on Machul for this teaching.

The Office Action states that the structure disclosed in Machul is equivalent to the structure disclosed in Zapf et al. and that therefore it would be obvious to use the structure disclosed in Machul in the invention of Zapf et al.

The Office Action has not demonstrated that the two structures are equivalent. Moreover, in the invention of Zapf et al. a voltage is generated as a result of magnetic coupling between exciter coil 12 and sensor loop 13 and this is not an equivalent structure to the LC oscillating circuit disclosed in Machul. The device of Zapf et al. and the device of Machul operate very differently and no evidence has been provided demonstrating that they are equivalents. The Supreme Court has made clear that a claim composed of several elements "is not

proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art" and stated the importance of identifying "a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does." *See KSR International Co. v. Teleflex Inc. et al.* 82 USPQ2d 1385, 1396 (2007). Conclusory statements that the devices of Zapf et al. and Machula are equivalent without supporting evidence and without addressing the fact that the two devices operate very differently is insufficient to meet the *prima facie* obviousness standard. Accordingly, it is Applicants' position that claims 11 and 12 are patentable over Zapf et al. in view of Machula and notice to this effect is respectfully requested.

Claims 11 and 12 are also patentable at least for the reason that they depend from a patentable base claim. *See In re Fine*, 5 USPQ2d 1596, 1600 (Fed. Cir. 1988). New claims 24-26 have been added and are patentable at least for the reason that they depend from a patentable base claim.

Additionally, claims 24 and 26 are patentable at least because Zapf et al. and Machula, alone or in combination, fail to disclose or suggest the limitations recited in claims 24 and 26. Claim 25 is patentable for similar reasons as claim 11, as explained above.

Claims 11, 16, 17, and 22 are amended herein to be in better form. New claims 22-26 have been added. Support for the new claims is found in, for example, Figure 2 and the specification on page 7, second full paragraph.

Applicants respectfully request a one month extension of time for responding to the Office Action. **The fee of \$120.00 for the extension is provided for in the charge authorization presented in the PTO Form 2038, Credit Card Payment form, provided herewith.**

If there is any discrepancy between the fee(s) due and the fee payment authorized in the Credit Card Payment Form PTO-2038 or the Form PTO-2038 is missing or fee payment via the Form PTO-2038 cannot be processed, the USPTO is hereby authorized to charge any fee(s) or fee(s) deficiency or credit any excess payment to Deposit Account No. 10-1250.

In light of the foregoing, the application is now believed to be in proper form for allowance of all claims and notice to that effect is earnestly solicited.

Respectfully submitted,  
JORDAN AND HAMBURG LLP

By C. Bruce Hamburg  
C. Bruce Hamburg  
Reg. No. 22,389  
Attorney for Applicants

~~By~~ and,

By Ricardo Unikel  
Ricardo Unikel  
Reg. No. 52,309  
Attorney for Applicants

Jordan and Hamburg LLP  
122 East 42nd Street  
New York, New York 10168  
(212) 986-2340

enc: Form PTO-2038